

## CLAIMS

1. An apparatus for cleaning of a gas from particles suspended therein, including a centrifugal rotor (7) for rotation of the gas, which centrifugal  
5 rotor is rotatable about a rotational axis in two bearings (8, 9) arranged axially spaced from each other and arranged to be charged with lubricant during operation of the centrifugal rotor,

characterized in

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- that the centrifugal rotor surrounds a channel (11), which extends axially through the rotor and through which a mist of said lubricant is movable from a space (6) near the centrifugal rotor into contact with one (8) of said bearings.

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2. An apparatus according to claim 1, in which said channel (11) extends centrally through the centrifugal rotor.

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3. An apparatus according to claim 1 or 2, in which the centrifugal rotor (7) has a rotatable central shaft (10), which is rotatable with the rotor and delimits said channel (11).

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4. An apparatus according to any one of the preceding claims, in which the centrifugal rotor (7) is rotatable by means of pressurized lubricant in a way such that said lubricant mist is generated in said space (6).

5. An apparatus according to claim 4, in which the centrifugal rotor (7) is drivingly connected to a turbine wheel (22), which is situated in said space (6).

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6. An apparatus according to claim 4 or 5, in which the centrifugal rotor (7) supports a turbine wheel (22), which is situated in said space (6).

5 7. An apparatus according to any one of the preceding claims, in which the centrifugal rotor (7) has a first axial end, which is situated within or near said space (6), the channel (11) through the centrifugal rotor extending from said first axial end of the centrifugal rotor to a second axial end of the centrifugal rotor, where it opens into a lubricant chamber (12) having an outlet arranged such that lubricant mist, which moves  
10 through the lubricant chamber (12), gets into contact with said one bearing (8).

8. An apparatus according to claim 7, in which said one bearing (8) is a ball bearing and arranged in the outlet of the lubricant chamber (12).  
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9. An apparatus according to claim 7 or 8, in which the centrifugal rotor (7) is supported by a stationary cap (13), which delimits said lubricant chamber (12) and on its inside supports said one (8) of the bearings.

20 10. An apparatus according to any one of the claims 7-9, in which the centrifugal rotor (7) has an inlet for gas to be cleaned, situated at said second axial end of the centrifugal rotor.

11. An apparatus according to any one of the claims 7-10, in which the  
25 centrifugal rotor (7) delimits a central inlet chamber (18) for gas to be cleaned, the outlet from said lubricant chamber (12) communicating with the central inlet chamber (18).

12. An apparatus according to any one of the preceding claims, in which  
30 the centrifugal rotor (7) includes a stack of conical separation discs (16),

which are arranged coaxially with said rotational axis and which between themselves delimit separation passages (17) arranged to be flowed through by gas to be cleaned.

- 5 13. An apparatus according to any one of the preceding claims, in which the centrifugal rotor (7) is supported in a housing (1-3) by means of two bearings (8, 9), the interior of the housing being divided by means of a partition (4) into a separation chamber (5), in which the main part of the centrifugal rotor (7) is arranged, and said space (6), in which a lubricating  
10 oil mist is present during operation of the centrifugal rotor, and said partition (4) supporting one (9) of said two bearings so that it is kept in contact with the lubricating oil mist in said space (6) without the lubricating oil mist having to pass through said channel (11) through the centrifugal rotor (7).

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